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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------|-------------|----------------------|---------------------|------------------|
| 10/725,662       | 12/01/2003  | Luigi Ciampi         | JCLA9650            | 5120             |
| 7590             |             | 06/21/2006           | EXAMINER            |                  |
| J.C. Patents     |             | LANG, AMY T          |                     |                  |
| Suite 250        |             | ART UNIT             |                     |                  |
| 4 Venture        |             | PAPER NUMBER         |                     |                  |
| Irvine, CA 92618 |             | 1714                 |                     |                  |

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |  |                     |  |
|------------------------------|------------------------|--|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> |  | <b>Applicant(s)</b> |  |
|                              | 10/725,662             |  | CIAMPI, LUIGI       |  |
|                              | <b>Examiner</b>        |  | <b>Art Unit</b>     |  |
|                              | Amy T. Lang            |  | 1714                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 6-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Specification***

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities: it is understood by the examiner that certain combinations of the disclosed diamines are to be combined. However, it is the examiner's position that the phrasing is confusing and should be modified. For instance, the Markush group is confusing by combining several "and," where it is custom for a Markush to contain only one. Thus note the repeat use of "and" in the single Markush group in lines 2-6 of claim 1. Applicants may wish to consider substituting "with" for "and." To avoid confusion, the examiner is indicating the specific occurrence of "and" along with its replacement in the cited portion of claim 1 below:

Belt lubricant or chain sliding agent concentrates comprising of a first component selected from the group consisting of ether diamines, salts of ether diamines (A), N-alkyldipropionamines, salts of N-alkyldipropionamines (B), ether diamines ~~and~~ with N-alkyldipropionamines, salts of ether diamines ~~and~~ with N-alkyldipropionamines; ether diamines ~~and~~ with salts of N-alkyldipropionamines, and salts of ether diamines ~~and~~ with salts of N-alkyldipropionamines, and optionally comprising a second component selected from the group consisting of diluents, auxiliaries, additives, diluents and auxiliaries, and diluents and additives

Additionally, the first and second paragraphs of the claim contain repeated information that is not necessary. Specifically, lines 2-6 of claim 1 contain the same information in lines 9-21 with the exception of formulas (I) and (II). The applicant may wish to condense the claim so that information is not repeated by only stating the information in lines 2-6 and then disclosing just the formulas of the two diamines. Appropriate correction is required.

3. Claim 9 is objected to because of the following informalities: claim 9 incorrectly spells the word preceding as "preceeding" in the second line of the claim and lacks the word "or" in the phrasing "according to one more of." Appropriate correction is required.

4. Claims 6-11 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

5. Given that the applicant intended claim 9 to read "according to one or more of the preceding claims 1 to 8," claims 9-11 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should only refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

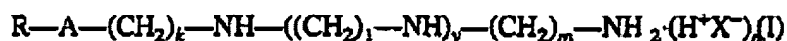
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 1714

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 2, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Laufenberg (US 5,474,692).

Laufenberg discloses a lubricant for use on belt conveyors comprised of diamines and/or their salts (column 1, lines 9-23). The diamine corresponds to the formula:



where R is a substituted or unsubstituted, linear or branched, saturated or mono- or polyunsaturated alkyl group having 6 to 22 carbon atoms, A represents an oxygen, X<sup>-</sup> is an anion of inorganic or organic acid, k, l, and m are independently integers from 1 to 6, y is an integer from 1 to 4, and n is an integer from 0 to 6 (column 4, lines 9-30). The substituents of R are further disclosed as an amino, imino, hydroxyl, halogen, or carboxy, or a substituted or unsubstituted phenyl radical were the substituents are selected from amino, imino, hydroxyl, halogen, carboxy, or a linear or branched, saturated or mono- or polyunsaturated alkyl group having 6 to 22 carbons. Therefore, this formula disclosed By Laufenberg clearly overlaps formula (I) of the instant claims.

The concentration of the diamine and/or salt is disclosed as 1 to 100% by weight, which clearly overlaps the instant range (column 3, lines 60-66). Other additives including diluents and auxiliaries may optionally be added to the lubricant in amounts from 5 to 20 % by weight, or 1 to 5% (column 1, lines 9-13; column 5, lines 38-55). The

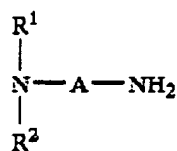
Art Unit: 1714

auxiliary additives are specifically disclosed as solubilizers including isopropanol, which clearly overlaps claim 5 (column 5, lines 38-46).

Therefore, Laufenberg '692 anticipates the cited present claims.

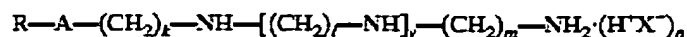
8. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Schmitz (US 6,780,254 B1).

Schmitz discloses a belt lubricating composition used in the packaging of foods (column 1, lines 14-18). The composition is comprised of one or more components selected from ether amines, ether diamines, ether polyamines, and mono-, di-, or polyamines and/or each of their salts (column 5, lines 12-18). Schmitz then specifically discloses the diamines, one of which corresponds to the following formula:



where R<sup>1</sup> is a saturated or unsaturated, branched or linear alkyl group having 8 to 22 carbons, R<sup>2</sup> is a hydrogen atom, an alkyl or hydroxyalkyl group having 1 to 4 carbon atoms, or an -A-NH<sub>2</sub> group, A is a linear or branched alkylene group having 1 to 8 carbon atoms (column 1, lines 34-51). Therefore, this formula disclosed By Schmitz clearly overlaps formula (II) of the instant claims.

Another diamine disclosed by Schmitz corresponds to the formula:



Art Unit: 1714

where R is a substituted or unsubstituted, linear or branched, saturated or mono- or polyunsaturated alkyl group having 6 to 22 carbon atoms, A represents an oxygen,  $X^-$  is an anion of an inorganic or organic acid, k, l, and m are independently integers of 1 to 6, and y is an integer from 1 to 4 (column 3, lines 31-54). The substituents of R are further disclosed as from an amino, imino, hydroxyl, halogen, and carboxy, or a substituted or unsubstituted phenyl group where the substituents are selected from amino, imino, hydroxyl, halogen, carboxy, and a linear or branched, saturated or mono- or polyunsaturated alkyl group having 6 to 22 carbon atoms. Therefore, this formula disclosed by Schmitz clearly overlaps formula (I) in the instant claims.

Since Schmitz teaches the combination of one or more diamines and/or their salts, therefore when either disclosed diamine or corresponding salt is utilized, Schmitz clearly overlaps the instant claims.

The concentrate of the diamines is disclosed as 0.5 to 99.5% by weight, and specifically 1 to 40% weight (column 5, lines 12-33). Additional additives are disclosed including auxiliaries, which are added in an amount from 0.1 to 15% weight (column 5, lines 45-52). Schmitz also teaches that the lubricant composition is diluted, thus diluents are intrinsically added to the composition (column 4, lines 49-67).

Therefore, Schmitz '254 anticipates the cited present claims.



Art Unit: 1714

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitz (US 6,780,254 B1).

Schmitz, as stated in paragraph 8 is incorporated here by reference, discloses a belt lubricating composition comprised of diamines. Although Schmitz does not disclose the specific combination of the two diamines in a lubricant, Schmitz does teach the combination of one or more diamines and/or their salts. Therefore, it would have been obvious to combine in a lubricant composition both the diamines and/or their salts in a belt lubricant. Therefore, one of ordinary skill would thereby obtain the invention as set forth in the presently cited claims.

Art Unit: 1714

12. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitz (US 6,780,254 B1) in view of Corby (US 2004/0029741).

Schmitz, as stated in paragraph 8 is incorporated here by reference, discloses a belt lubricating composition comprised of diamines. However, Schmitz does not disclose the addition of a fatty acid ester, specifically rape oil methyl ester, or an alcohol solvent.

Corby also discloses a lubricant for conveyor belts in the food industry comprised of diamines ([0001], [0004], [0086]). The lubricant is comprised of vegetable oil, specifically rapeseed oil since this oil is known to work well with conveyor belts ([0041], [0043]). The oil comprises 10 to 90% by weight of the lubricant. Rapeseed oil and rape oil methyl ester are both vegetable oils and intrinsically display the same characteristics. Therefore, it would have been obvious for Schmitz to incorporate rape oil methyl ester into the lubricating composition, as vegetable oil is well known in the lubricant art.

Corby also discloses the addition of alcohols, specifically methanol, ethanol, and isopropanol as a solvent ([0031]). This solvent helps to aid the evaporation of water from the lubricant on the conveyor belt. It therefore would have been obvious to include an alcohol solvent in the composition disclosed by Schmitz, as it is a helpful aid. Therefore, one of ordinary skill would thereby obtain the invention as set forth in the presently cited claims.

13. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitz (US 6,780,254 B1) in view of Ayala (US 4,952,617).

Schmitz, as stated in paragraph 8 is incorporated here by reference, discloses a belt lubricating composition comprised of diamines. Additionally, Schmitz discloses surfactants as an additive to the composition (column 5, lines 45-52). The surfactants, specifically fatty alcohol compounds, are added in amounts of 0.1 to 15% by weight. However, Schmitz does not further define the surfactants.

Ayala discloses that trimethylol based surfactants are known in the art (column 4, line 10). It therefore would have been obvious for Schmitz to use a trimethylol surfactant, since Schmitz is silent as to the surfactant. Therefore, one of ordinary skill would thereby obtain the invention as set forth in the presently cited claims.

14. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitz (US 6,780,254 B1) in view of Balzer (US 5,217,637).

Schmitz, as stated in paragraph 8 is incorporated here by reference, discloses a belt lubricating composition comprised of diamines. Additionally, Schmitz discloses surfactants as an additive to the composition (column 5, lines 45-52). The surfactants, specifically fatty alcohol compounds, are added in amounts of 0.1 to 15% by weight. However, Schmitz does not further define the surfactants.

Balzer discloses that phosphoric acid esters of fatty alcohol ethoxylates are known in the lubricant art as surfactants (column 4, lines 3-10). It therefore would have been obvious for Schmitz to use phosphoric acid esters of fatty alcohol ethoxylates as the disclosed surfactant, since Schmitz teaches the use of a fatty alcohol surfactant.

Art Unit: 1714

Therefore, one of ordinary skill would thereby obtain the invention as set forth in the presently cited claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy T. Lang whose telephone number is 571-272-9057. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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06/16/2006

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